In the Claims:

Please cancel claims 1 – 35 without prejudice or disclaimer of the subject matter thereof, and add the following new claims as indicated below.

1 – 35 (Canceled).

36 (New). A firearm laser training system enabling a user to project a laser beam toward a target to simulate firearm operation comprising:

a sensing device to scan said target to produce scanned images of said target including impact locations of said laser beam on said target; and

a processor to process said scanned images including said impact locations, wherein said processor includes:

a density module to determine pixel density values for pixels within said scanned images, wherein said pixel density value for a scanned image pixel is determined by combining component pixel values for that pixel; and

a detection module to identify said impact locations within said scanned images based on said pixel density values of pixels within said scanned images exceeding a threshold.

37 (New). The system of claim 36, wherein said component pixel values for each pixel within said scanned images include values associated with Red (R), Green (G) and Blue (B) pixel components, and said pixel density value for that pixel is determined by:

Pixel Density = (Red value x Weight1) + (Green value x Weight2) + (Blue value x Weight3); wherein Weight1, Weight2 and Weight3 are weighting values.

38 (New). The system of claim 36, wherein said detection module includes a group location module to compare pixel density values of scanned image pixels to said threshold to identify a group of pixels within a scanned image where each group member pixel includes a pixel density value exceeding said threshold.

39 (New). The system of claim 38, wherein said detection module further includes an impact location module to determine the scanned image pixel positioned at a center of said group and representing said impact location.

40 (New). The system of claim 39, wherein said detection module further includes a coordinate module to determine coordinates of said pixel representing said impact location.

41 (New). The system of claim 36, wherein said target includes a plurality of zones each representing an intended target site and associated with a score value, and said processor further includes:

a scoring module to determine impact scores, wherein each impact score is associated with a detected impact location and based on said score value of said zone containing that detected impact location.

42 (New). The system of claim 36 further including a display to display an image of said target with indicia indicating said detected impact locations.

43 (New). The system of claim 36, wherein said processor further includes:

a threshold module to automatically adjust said threshold in response to measured light conditions of a surrounding environment.

44 (New). A firearm laser training system enabling a user to project a laser beam toward a target to simulate firearm operation comprising:

a sensing device to scan said target to produce scanned images of said target including impact locations of said laser beam on said target, wherein said sensing device is positioned relative to said target to produce said scanned images with an angled perspective of said target; and

a processor to process said scanned images including said impact locations, wherein said processor includes a detection module to compensate for said angled perspective and identify said impact locations within said scanned images.

45 (New). The system of claim 44, wherein said scanned images include a trapezoidal field of view of said target.

46 (New). The system of claim 44, wherein said sensing device is positioned below said target.

47 (New). The system of claim 44, wherein said processor further includes a calibration module to correlate a target space associated with said target with a target space associated with said scanned target images.

48 (New). The system of claim 44, wherein said processor further includes a coordinate module to determine coordinates within said scanned images of said impact locations.

49 (New). The system of claim 44, wherein said sensing device includes said processor and said processor further includes a coordinate module to determine coordinates within said scanned images of said impact locations.

50 (New). The system of claim 49, wherein said sensing device is a camera.

51 (New). The system of claim 44, wherein said target includes a plurality of zones each representing an intended target site and associated with a score value, and said processor further includes:

a scoring module to determine impact scores, wherein each impact score is associated with a detected impact location and based on said score value of said zone containing that detected impact location.

52 (New). The system of claim 44 further including a display to display an image of said target with indicia indicating said detected impact locations.

53 (New). A firearm laser training system enabling a user to project a laser beam toward a target to simulate firearm operation comprising:

a sensing device to scan said target to produce scanned images of said target including impact locations of said laser beam on said target; and

a processor to process said scanned images including said impact locations and determine said impact locations on said target, wherein said processor includes a Universal Serial Bus (USB) port and said sensing device includes a camera directly compatible with and coupled to said USB port.

54 (New). The system of claim 53, wherein said camera includes a scanning interval greater than a pulse duration of said laser beam.

55 (New). The system of claim 53, wherein said sensing device includes a CMOS type camera.

56 (New). The system of claim 53, wherein said processor includes a coordinate module to determine coordinates within said scanned images of said detected impact locations.

57 (New). The system of claim 53, wherein said target includes a plurality of zones each representing an intended target site and associated with a score value, and said processor further includes:

a scoring module to determine impact scores, wherein each impact score is associated with a detected impact location and based on said score value of said zone containing that detected impact location.

58 (New). The system of claim 53 further including a display to display an image of said target with indicia indicating said detected impact locations.

59 (New). In a firearm simulation system enabling a user to project a laser beam toward a target and including a sensing device and a processor, a method of simulating firearm operation comprising:

(a) scanning said target with said sensing device to produce scanned images of said target including impact locations of said laser beam on said target; and

(b) processing said scanned images including said impact locations via said processor, wherein said processing includes:

(b.1) determining pixel density values for pixels within said scanned images, wherein said pixel density value for a scanned image pixel is determined by combining component pixel values for that pixel; and

(b.2) identifying said impact locations within said scanned images based on said

pixel density values of pixels within said scanned images exceeding a threshold.

60 (New). The method of claim 59, wherein said component pixel values for each pixel within said scanned images include values associated with Red (R), Green (G) and Blue (B) pixel components, and step (b.1) further includes:

(b.1.1) determining said pixel density value for a scanned image pixel in accordance with:

Pixel Density = (Red value x Weight1) + (Green value x Weight2) + (Blue value x Weight3);

wherein Weight1, Weight2 and Weight3 are weighting values.

61 (New). The method of claim 59, wherein step (b.2) further includes:

(b.2.1) comparing pixel density values of scanned image pixels to said threshold to identify a group of pixels within a scanned image where each group member pixel includes a pixel density value exceeding said threshold.

62 (New). The method of claim 61, wherein step (b.2) further includes:

(b.2.2) determining the scanned image pixel positioned at a center of said group and representing said impact location.

63 (New). The method of claim 62, wherein step (b.2) further includes:

(b.2.3) determining coordinates of said pixel representing said impact location.

64 (New). The method of claim 59, wherein said target includes a plurality of zones each representing an intended target site and associated with a score value, and step (b.2) further includes:

(b.2.1) determining impact scores, wherein each impact score is associated with a detected impact location and based on said score value of said zone containing that detected impact location.

65 (New). The method of claim 59 further including:

(c) displaying an image of said target with indicia indicating said detected impact locations on a display.

66 (New). The method of claim 59, wherein step (b) further includes:

(b.3) automatically adjusting said threshold in response to measured light conditions of a surrounding environment.

67 (New). In a firearm simulation system enabling a user to project a laser beam toward a target and including a sensing device and a processor, a method of simulating firearm operation comprising:

(a) scanning said target with said sensing device to produce scanned images of said target including impact locations of said laser beam on said target, wherein said sensing device is positioned relative to said target to produce said scanned images with an angled perspective of said target; and

(b) processing said scanned images including said impact locations via said processor to

compensate for said angled perspective and identify said impact locations within said scanned images.

68 (New). The method of claim 67, wherein said scanned images include a trapezoidal field of view of said target.

69 (New). The method of claim 67, wherein said sensing device is positioned below said target.

70 (New). The method of claim 67, wherein step (b) further includes:

(b.1) correlating a target space associated with said target with a target space associated with said scanned target images.

71 (New). The method of claim 67, wherein step (b) further includes:

(b.1) determining coordinates within said scanned images of said impact locations.

72 (New). The method of claim 67, wherein said sensing device includes said processor and step (b) further includes:

(b.1) determining coordinates within said scanned images of said impact locations.

73 (New). The method of claim 72, wherein said sensing device is a camera.

74 (New). The method of claim 67, wherein said target includes a plurality of zones each representing an intended target site and associated with a score value, and step (b) further includes:

(b.1) determining impact scores, wherein each impact score is associated with a detected impact location and based on said score value of said zone containing that detected impact location.

75 (New). The method of claim 67 further including:

(c) displaying an image of said target with indicia indicating said detected impact locations on a display.

76 (New). In a firearm simulation system enabling a user to project a laser beam toward a target and including a sensing device and a processor, a method of simulating firearm operation comprising:

(a) scanning said target with said sensing device to produce scanned images of said target including impact locations of said laser beam on said target; and

(b) processing said scanned images including said impact locations via said processor and determining said impact locations on said target, wherein said processor includes a Universal Serial Bus (USB) port and said sensing device includes a camera directly compatible with and coupled to said USB port.

77 (New). The method of claim 76, wherein said camera includes a scanning interval greater than a pulse duration of said laser beam.

78 (New). The method of claim 76, wherein said sensing device includes a CMOS type camera.

79 (New). The method of claim 76, wherein step (b) further includes:

(b.1) determining coordinates within said scanned images of said detected impact locations.

80 (New). The method of claim 76, wherein said target includes a plurality of zones each representing an intended target site and associated with a score value, and step (b) further includes:

(b.1) determining impact scores, wherein each impact score is associated with a detected impact location and based on said score value of said zone containing that detected impact location.

81 (New). The method of claim 76 further including:

(c) displaying an image of said target with indicia indicating said detected impact locations on a display.